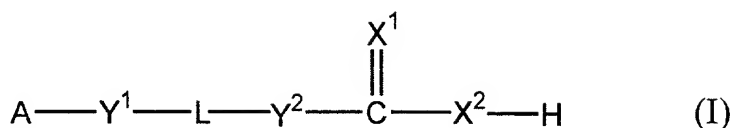


WHAT IS CLAIMED IS:

1. A compound of formula (I):



wherein

A is a cyclic moiety selected from the group consisting of C₃₋₁₄ cycloalkyl, 3-14 membered heterocycloalkyl, C₄₋₁₄ cycloalkenyl, 3-14 membered heterocycloalkenyl, aryl, or heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

each of X¹ and X², independently, is O or S;

each of Y¹ and Y², independently, is -CH₂-, -O-, -S-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-O-, or a bond; each of R^a and R^b, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

L is a straight C₃₋₁₂ hydrocarbon chain optionally containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, C₁₋₄ alkoxy, hydroxyl, halo, amino, nitro, cyano, C₃₋₅ cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C₁₋₄ alkylcarbonyloxy, C₁₋₄ alkyloxycarbonyl, C₁₋₄ alkylcarbonyl, or formyl; and further being optionally interrupted by -O-, -N(R^c)-, -N(R^c)-C(O)-O-, -O-C(O)-N(R^c)-, -N(R^c)-C(O)-N(R^d)-, or -O-C(O)-O-; each of R^c and R^d, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; provided that when L contains two or more double bonds, the double bonds are not adjacent to each other; and further provided that when L contains less than 6 carbon atoms in the hydrocarbon chain, Y¹ is not a bond;

or a salt thereof.

2. The compound of claim 1, wherein X¹ is O.

3. The compound of claim 1, wherein X^2 is O.

4. The compound of claim 1, wherein each of X^1 and X^2 is O.

5. The compound of claim 1, wherein each of Y^1 and Y^2 , independently, is $-CH_2-$, $-O-$, $-N(R^a)-$, or a bond.

6. The compound of claim 1, wherein L is a saturated C_{3-8} hydrocarbon chain optionally substituted with C_{1-2} alkyl, C_{1-2} alkoxy, hydroxyl, $-NH_2$, $-NH(C_{1-2} \text{ alkyl})$, or $-N(C_{1-2} \text{ alkyl})_2$.

7. The compound of claim 1, wherein L is an unsaturated C_{4-8} hydrocarbon chain containing at least one double bond and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkyl, C_{1-2} alkoxy, hydroxyl, $-NH_2$, $-NH(C_{1-2} \text{ alkyl})$, or $-N(C_{1-2} \text{ alkyl})_2$.

8. The compound of claim 7, wherein the double bond is in trans configuration.

9. The compound of claim 1, wherein L is an unsaturated C_{4-8} hydrocarbon chain containing at least one double bond and one triple bond, said unsaturated hydrocarbon chain being optionally substituted with C_{1-2} alkyl, C_{1-2} alkoxy, hydroxyl, $-NH_2$, $-NH(C_{1-2} \text{ alkyl})$, or $-N(C_{1-2} \text{ alkyl})_2$.

10. The compound of claim 9, wherein the double bond is in trans configuration.

11. The compound of claim 1, wherein A is a C_{5-8} cycloalkenyl or 5-8 membered heteroalkenyl containing at least two double bonds.

12. The compound of claim 1, wherein A is phenyl, naphthyl, indanyl, or tetrahydronaphthyl.

13. The compound of claim 1, wherein A is phenyl optionally substituted with alkyl alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, or amino.

1 14. The compound of claim 13, wherein L is a C₃₋₈ saturated hydrocarbon chain optionally
2 substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or
3 -N(C₁₋₂ alkyl)₂.

1 15. The compound of claim 14, wherein X¹ is O; X² is O; and each of Y¹ and Y²,
2 independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

1 16. The compound of claim 13, wherein L is an unsaturated C₄₋₈ hydrocarbon chain
2 containing only double bonds in trans configuration, said unsaturated hydrocarbon chain
3 being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or
4 -N(C₁₋₂ alkyl)₂.

1 17. The compound of claim 16, wherein X¹ is O; X² is O; and each of Y¹ and Y²,
2 independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

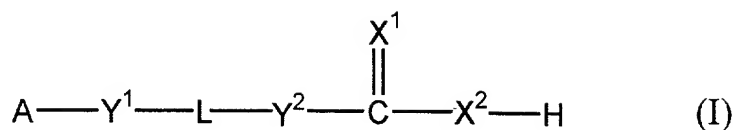
1 18. The compound of claim 13, wherein L is an unsaturated C₄₋₈ hydrocarbon chain
2 containing at least one double bond and one triple bond, said unsaturated hydrocarbon chain
3 being substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or
4 -N(C₁₋₂ alkyl)₂.

1 19. The compound of claim 18, wherein X¹ is O; X² is O; and each of Y¹ and Y²,
2 independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

1 20. The method of claim 1, said compound being 4-chloro-5-phenyl-2,4-pentadienoic acid, 5-
2 (4-dimethylaminophenyl)-2,4-pentadienoic acid, 5-(2-furyl)-2,4-pentadienoic acid, 5-phenyl-
3 2-en-4-yn-pentanoic acid, 7-phenyl-2,4,6-heptatrienoic acid, or 8-phenyl-3,5,7-octatrienoic
4 acid.

1 21. The method of claim 1, said compound being 7-phenyl-2,4,6-heptatrienoic acid or 8-
2 phenyl-3,5,7-octatrienoic acid.

22. A compound of formula (I):



wherein

A is a cyclic moiety selected from the group consisting of aryl or heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, or amino;

each of X^1 and X^2 , independently, is O or S;

each of Y^1 and Y^2 , independently, is $-\text{CH}_2-$, $-\text{O}-$, $-\text{S}-$, $-\text{N}(\text{R}^a)-$, $-\text{N}(\text{R}^a)-\text{C}(\text{O})-\text{O}-$, $-\text{O}-\text{C}(\text{O})-\text{N}(\text{R}^a)-$, $-\text{N}(\text{R}^a)-\text{C}(\text{O})-\text{N}(\text{R}^b)-$, $-\text{O}-\text{C}(\text{O})-\text{O}-$, or a bond; each of R^a and R^b , independently, being hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

L is a straight C_{3-12} hydrocarbon chain optionally containing at least one double bond, at least one triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, or amino, and further optionally interrupted by $-\text{O}-$ or $-\text{N}(\text{R}^c)-$, where R^c is hydrogen, alkyl, hydroxylalkyl, or haloalkyl; provided that when L contains two or more double bonds, the double bonds are not adjacent to each other; and further provided that when L contains less than 6 carbon atoms in the hydrocarbon chain, Y^1 is not a bond;

or a salt thereof.

23. The compound of claim 22, wherein L is a C_{3-8} saturated hydrocarbon chain optionally substituted with C_{1-2} alkyl, C_{1-2} alkoxy, hydroxyl, $-\text{NH}_2$, $-\text{NH}(\text{C}_{1-2} \text{ alkyl})$, or $-\text{N}(\text{C}_{1-2} \text{ alkyl})_2$.

24. The compound of claim 23, wherein X^1 is O; X^2 is O; and each of Y^1 and Y^2 , independently, is $-\text{CH}_2-$, $-\text{O}-$, $-\text{N}(\text{R}^a)-$, or a bond.

25. The compound of claim 22, wherein L is an unsaturated C_{4-8} hydrocarbon chain containing only double bonds in trans configuration, said unsaturated hydrocarbon chain

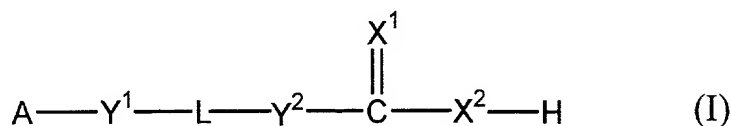
being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

26. The compound of claim 25, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

27. The compound of claim 22, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond and one triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

28. The compound of claim 27, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

29. A compound of formula (I):



wherein

A is a heteroaryl optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, or amino;

each of X¹ and X², independently, is O or S;

each of Y¹ and Y², independently, is -CH₂-, -O-, -S-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-O-, or a bond; each of R^a and R^b, independently, being hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

L is a straight C₃₋₁₂ hydrocarbon chain optionally containing at least one double bond, at least one a triple bond, or at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, C₁₋₄ alkoxy, or amino, and further optionally interrupted by -O- or -N(R^c)-, where R^c is hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

or a salt thereof.

30. The compound of claim 29, wherein L is a C₃₋₈ saturated hydrocarbon chain optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

31. The compound of claim 30, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

32. The compound of claim 29, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond in trans configuration and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

33. The compound of claim 32, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

34. The compound of claim 29, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond and one triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

35. The compound of claim 34, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

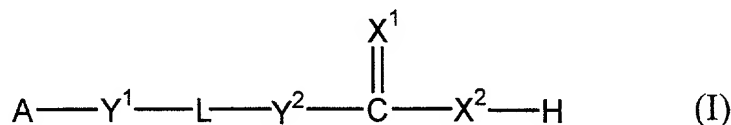
36. The compound of claim 29, wherein A is furyl, thienyl, pyrrolyl, or pyridyl.

37. The compound of claim 36, wherein L is a C₃₋₈ saturated hydrocarbon chain optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂; X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

38. The compound of claim 36, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond in trans configuration and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂; X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

39. The compound of claim 36, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond and one triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂; X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

40. A compound of formula (I):



wherein

A is a phenyl optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, or amino;

each of X¹ and X², independently, is O or S;

each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-O-, or a bond; each of R^a and R^b, independently, being hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

L is a straight C₃₋₁₂ hydrocarbon chain containing at least one double bond and one triple bond; said hydrocarbon chain being optionally substituted with C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, C₁₋₄ alkoxy, or amino, and further optionally interrupted by -O- or -N(R^c)-, where R^c is hydrogen, alkyl, hydroxylalkyl, or haloalkyl;

or a salt thereof.

41. The compound of claim 40, wherein L is a C₃₋₈ saturated hydrocarbon chain optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

42. The compound of claim 41, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

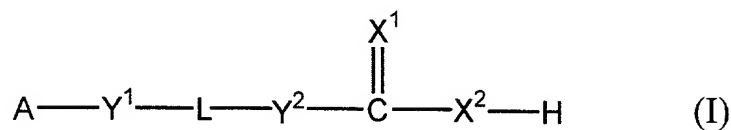
43. The compound of claim 40, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond in trans configuration and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

44. The compound of claim 43, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

45. The compound of claim 40, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond and one triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

46. The compound of claim 45, wherein X¹ is O; X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^a)-, or a bond.

47. A compound of formula (I):



wherein

5 A is a saturated branched C₃₋₁₂ hydrocarbon chain or an unsaturated branched C₃₋₁₂
6 hydrocarbon chain optionally interrupted by -O-, -S-, -N(R^a)-, -C(O)-, -N(R^a)-SO₂-, -SO₂-
7 N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-SO₂-, -SO₂-O-, or
8 -O-C(O)-O- where each of R^a and R^b, independently, is hydrogen, alkyl, alkenyl, alkynyl,
9 alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; each of the saturated and the unsaturated
10 branched hydrocarbon chain being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy,
11 hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl,
12 alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

13 each of X¹ and X², independently, is O or S;

14 each of Y¹ and Y², independently, is -CH₂-, -O-, -S-, -N(R^c)-, -C(O)-, -N(R^c)-SO₂-,
15 -SO₂-N(R^c)-, -N(R^c)-C(O)-O-, -O-C(O)-N(R^c)-, -N(R^c)-C(O)-N(R^d)-, -O-SO₂-, -SO₂-O-,
16 -O-C(O)-O-, or a bond; each of R^c and R^d, independently, being hydrogen, alkyl, alkenyl,
17 alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

18 L is a straight C₂₋₁₂ hydrocarbon chain optionally containing at least one double bond,
19 at least one a triple bond, or at least one double bond and one triple bond; said hydrocarbon
20 chain being optionally substituted with C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, C₁₋₄ alkoxy,
21 hydroxyl, halo, amino, nitro, cyano, C₃₋₅ cycloalkyl, 3-5 membered heterocycloalkyl,
22 monocyclic aryl, 5-6 membered heteroaryl, C₁₋₄ alkylcarbonyloxy,
23 C₁₋₄ alkyloxycarbonyl, C₁₋₄ alkylcarbonyl, or formyl; and further being optionally interrupted
24 by -O-, -S-, -N(R^e)-, -C(O)-, -N(R^e)-SO₂-, -SO₂-N(R^e)-, -N(R^e)-C(O)-O-, -O-C(O)-N(R^e)-,
25 -N(R^e)-C(O)-N(R^f)-, -O-SO₂-, -SO₂-O-, or -O-C(O)-O-; each of R^e and R^f, independently,
26 being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;
27 provided that when L contains two or more double bonds, the double bonds are not adjacent
28 to each other; and further provided that A contains a heteroatom selected from the group
29 consisting of O, S, or N or a double or triple bond;

30 or a salt thereof.

1 48. The compound of claim 47, wherein X¹ is O.

1 49. The compound of claim 47, wherein X¹ is O.

1 50. The compound of claim 47, wherein each of X¹ and X² is O.

1 51. The compound of claim 47, wherein each of Y¹ and Y², independently, is -CH₂-, -O-,
2 -N(R^c)-, or a bond.

1 52. The compound of claim 47, wherein each of Y¹ and Y², independently, is -CH₂- or a
2 bond.

1 53. The compound of claim 47, wherein L is a saturated C₃₋₈ hydrocarbon chain optionally
2 substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or
3 -N(C₁₋₂ alkyl)₂.

1 54. The compound of claim 47, wherein L is an unsaturated C₄₋₈ hydrocarbon chain
2 containing at least one double bond and no triple bond, said unsaturated hydrocarbon chain
3 being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂,
4 -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

1 55. The compound of claim 54, wherein the double bond is in trans configuration.

1 56. The compound of claim 47, wherein L is an unsaturated C₄₋₈ hydrocarbon chain
2 containing at least one double bond and one triple bond; said unsaturated hydrocarbon chain
3 being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂,
4 -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

1 57. The compound of claim 56, wherein the double bond is in trans configuration.

1 58. The compound of claim 47, wherein A is a saturated branched C₄₋₁₀ hydrocarbon chain
2 interrupted by -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-, or
3 -C(O)-O- where each of R^a and R^b, independently, is hydrogen, alkyl, alkoxy, hydroxylalkyl,
4 or hydroxyl.

59. The compound of claim 58, wherein L is a saturated C₃₋₈ hydrocarbon chain optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

60. The compound of claim 59, wherein each of X¹ and X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

61. The compound of claim 58, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing only double bonds, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

62. The compound of claim 61, wherein each of X¹ and X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

63. The compound of claim 58, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond and one triple bond; said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

64. The compound of claim 63, wherein each of X¹ and X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

65. The compound of claim 47, wherein A is an unsaturated branched C₄₋₁₀ hydrocarbon chain optionally interrupted by -N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-, or -C(O)-O- where each of R^a and R^b, independently, is hydrogen, alkyl, alkoxy, hydroxylalkyl, or hydroxyl.

66. The compound of claim 65, wherein A contains at least one double bond in trans configuration and no triple bond.

67. The compound of claim 66, wherein L is a saturated C₃₋₈ hydrocarbon chain optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

68. The compound of claim 67, wherein each of X¹ and X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

69. The compound of claim 66, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond in trans configuration and no triple bond, said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

70. The compound of claim 69, wherein each of X¹ and X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

71. The compound of claim 66, wherein L is an unsaturated C₄₋₈ hydrocarbon chain containing at least one double bond in trans configuration and one triple bond; said unsaturated hydrocarbon chain being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

72. The compound of claim 71, wherein each of X¹ and X² is O; and each of Y¹ and Y², independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

73. The compound of claim 65, wherein A contains at least one double bond and one triple bond.

74. The compound of claim 73, wherein L is a saturated C₃₋₈ hydrocarbon chain optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

1 75. The compound of claim 74, wherein each of X¹ and X² is O; and each of Y¹ and Y²,
2 independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

1 76. The compound of claim 73, wherein L is an unsaturated C₄₋₈ hydrocarbon chain
2 containing only double bonds, said unsaturated hydrocarbon chain being optionally
3 substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂, -NH(C₁₋₂ alkyl), or
4 -N(C₁₋₂ alkyl)₂.

1 77. The compound of claim 76, wherein each of X¹ and X² is O; and each of Y¹ and Y²,
2 independently, is -CH₂-, -O-, -N(R^c)-, or a bond.

1 78. The compound of claim 73, wherein L is an unsaturated C₄₋₈ hydrocarbon chain
2 containing at least one double bond and one triple bond; said unsaturated hydrocarbon chain
3 being optionally substituted with C₁₋₂ alkyl, C₁₋₂ alkoxy, hydroxyl, -NH₂,
4 -NH(C₁₋₂ alkyl), or -N(C₁₋₂ alkyl)₂.

1 79. The compound of claim 78, wherein each of X¹ and X² is O; and each of Y¹ and Y²,
2 independently, is -CH₂-, -O-, -N(R^c)-, or a bond.